Message

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Sent: 8/21/2019 8:47:29 PM
To: Paz, Armando, NMENV [Armando.Paz@state.nm.us]
CC: Verhalen, Frances [verhalen.frances@epa.gov]; Madden, Joshua [madden.joshua@epa.gov]
Subject: Exceptional Event Demonstrations - opportunity for streamlining

During today's call, you asked about potential opportunities to streamline the demonstration. I have not completed my initial review of the draft demonstration package for the 2016 events but wanted to get back to you.

Specifically, you wondered if both the back trajectories analysis and the pollution wind rose are needed. On the phone, I stated my initial response that I believe both can be useful in a demonstration. The trajectories help with the evaluation of potential emission sources for the exceedance and provides elevation information about predicted trajectory path start and end. The wind rose of monitor data can help the evaluation of which back trajectory path is more likely to be applicable to the event or exceedance.

I reviewed some of the 2016 sections of the demonstration. As I went thru them, I started to appreciate the validity of your question more. The back trajectories analysis began to feel redundant of the plume images and wind rose diagrams.

The April 2019 national high wind guidance indicates that the back trajectories analysis is an example of an element for a Tier 3 reasonable control analysis but not for Tier 2. I have not looked at all the 2016 event wind data but if they are all Tier 2, then the guidance indicate a back trajectories analysis for each event may not be needed . Of course, if the analysis helps explain your conceptual model of the event, you can include it. Later in the April 2019 national high wind guidance, EPA lists back trajectories as an example of information that can help address the clear causal criteria. Bottom line – for Tier 2 situations the national guidance leaves it up to your discretion on whether back trajectories analysis are part of the demonstration.

For those events where multiple monitors exceed, likely one back trajectories analysis will suffice, rather than conducting an analysis for each monitor. The back trajectories analysis is on a scale such that monitors located relatively closely end up with the same result.

Other streamline opportunities, examples are from 3/12/16 event section but likely apply to other event sections –

The information in Figure 3-12 could have been conveyed in Figure 3-9 if the X axis had been extended. I believe the purpose of Figure 3-12 will still be met if the event day peaks are 'squished' somewhat. Plus Table 3-2 gives the actual detailed data for the subject monitor of that is represented by Figure 3-9. I prefer that Figure 3-9 remain in the demonstration since it shows what the other monitors in the area were doing during the event. The discussion in the Figure 3-12 area could reference the earlier figure.

I believe the Figure 3-3 image could be eliminated. The narrative, however, discusses and provides information about the wind direction. The wind rose diagram provides a visual of the wind direction. If you want more than the narrative, the wind rose could be moved up into the conceptual model discussions and referred to later in the section. If the back trajectories analysis image is kept in the demonstration then Figure 3-3 redundancy becomes more of a factor. The April 2019 national high wind guidance calls for a map of the subject monitor(s) as part of the conceptual model but not of the potential emission source areas. The conceptual model discussions could reference Figure 2-2 for map of monitors.

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